



NPDES Compliance Inspection Report

Municipality of Haines Wastewater Treatment Facility Haines, Alaska

**NPDES Tracking Number
#AK-002138-5**

Inspection Date: 5/29/2024

Prepared by:

CJ Langlois
U.S. Environmental Protection Agency, Region 10
Enforcement & Compliance Assurance Division
Water Enforcement & Field Branch
Field, Data & Drinking Water Enforcement Section

Inspector Signature/Date:

Langlois, Curmit

Digitally signed by Langlois, Curmit
Date: 2024.07.18 19:01:29 -07'00'

Supervisor Signature/Date:

PETER CONTRERAS

Digitally signed by PETER CONTRERAS
Date: 2024.07.23 09:59:31 -07'00'

Contents

I.	Facility Information	1
II.	Inspection Information	1
III.	Permit Information	2
IV.	Enforcement Background	2
V.	Inspection Chronology	2
VI.	Opening Conference.....	3
VII.	Laboratory Inspection.....	4
VIII.	Site Review.....	4
IX.	File Review.....	5
IX.	Areas of Concern	5
XI.	Closing Conference.....	6

Attachment A – Aerial Image

Attachment B – Photograph Log

[Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Dennis Durr, a review of facility documents, and/or from observations made during the inspection.]

I. Facility Information

Facility Name: Municipality of Haines WWTP

Facility Owner/Operator: Owner - Haines Borough

Operator – Dennis Durr (Level II WWTP Certified – State of Alaska)

Physical/Mailing Address: Physical: 229 Fair Drive
Haines, AK 99827

Mailing: P.O. Box 1209
Haines, AK 99827

Lat/Long: 59.2334947° N, -135.4588462° W

Facility Contacts: Dennis Durr, Operator/Supervisor
Municipality of Haines WWTP
Office: (907) 766-6452
Cell: (907) 314-0823
Email: ddurr@haines.ak.us

Permit Number: AK-002138-5

NAICS Code: 221320 (Sewage Treatment Facilities)

Nearest Surface Water: Portage Cove of Chilkoot Inlet

II. Inspection Information

Inspection Date: May 29, 2024

Inspectors: CJ Langlois
EPA Region 10, ECAD / WEFB / FDDWES
Phone: 206-553-2739

Arrival Time: 11:15 a.m.

Departure Time: 2:30 p.m.

Weather: Mostly Cloudy, 52° F

Purpose: To evaluate compliance with the requirements of the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) permit # AK-002138-5 for the Municipality of Haines Wastewater Treatment Facility

III. Permit Information

On November 20, 2001, the U.S. Environmental Protection Agency (EPA) issued the National Pollutant Discharge Elimination System (NPDES) permit for the Municipality of Haines Wastewater Treatment Facility, permit #AK-002138-5. The permit became effective on December 24, 2001. The EPA received the Haines WWTP application for permit renewal on July 13, 2006, and determined the application to be timely and complete. The permit has been administratively extended multiple times since its expiration on December 26, 2006.

IV. Enforcement Background

There has been no recent (5 years) enforcement activity at this facility.

V. Inspection Chronology

This was an announced inspection. On May 17, 2024, I reached out to Mr. Durr to schedule the Clean Water Act inspection of the Municipality of Haines Wastewater Treatment Facility.

On May 29, 2024, I arrived at the facility at 11:15 a.m. and I presented my credential to Mr. Durr. I was accompanied by Mr. Durr throughout the inspection and was not denied access to any area of the facility. Mr. Durr answered all my questions and concerns.

I began the inspection with a brief opening conference with Mr. Durr and explained the scope of the inspection. We first sat down inside the office building while I conducted a file review and asked Mr. Durr pertinent questions. Mr. Durr then led me on a tour of the facility and explained the various processes of their operation. We ended with a brief closing conference outside to discuss observations and next steps around 2:30 p.m.

VI. Opening Conference

I began the inspection with a brief opening conference in the facility office, with Mr. Durr, and explained the scope of the inspection. I handed over an SBA (Small Business Administration) form, a business card, and commenced a file review.

The Haines WWTP is located in a fairly remote part of Alaska that required several flights and a ferry ride to get to. It is a publicly own treatment works that has been in operation since 1974. The facility does not treat industrial sources of wastewater but does treat wastewater coming from a nearby brewery. It primarily treats residential wastewater and in 2022, the population in Haines was approximately 1700. There are 3 employees that maintain and operate the WWTP.

The Haines WWTP was initially designed as an enhanced primary treatment facility that treated 200,000 gallons of wastewater daily. Soon it was realized that this design limit would be far exceeded due to inflow and infiltration problems. The facility sometimes experiences flow up to a million gallons daily. The facility received a waiver, in 1986, to change to a 301(h) facility that only requires primary treatment of wastewater. The program of section 301(h) of the Clean Water Act (CWA) issues waivers to treatment facilities that allows the facility to discharge wastewater into marine waters with less than full secondary treatment.

In 1993, the Haines WWTP upgraded their outfall pipe from 10 to 16 inches and extended the outfall point into Portage Cove by approximately 1100 feet. Previously, the 10-inch outfall pipe emptied near the beach. The 16-inch pipe now empties where there are more substantial currents which allow for greater dilution and dispersion. A diffuser was also installed on the end of the 16-inch outfall pipe.

The facility is currently waiting on a grant to conduct the first phase of study on inflow and infiltration, which is currently a problem for the facility during heavy snow and rain events.

VII. Laboratory Inspection

The Haines WWTP utilizes ERA Lab, out of Denver, for WET testing, toxic pollutants, and pesticides. TSS, DO, pH, and BOD 5-Day, fecal coliform, temperature, and copper are analyzed in-house. I inspected their various lab equipment during my visit. The oven is from Quincy Labs, Inc and is a Model 20 Lab Oven. pH meters are calibrated weekly and buffer solutions were within their expiration dates. I inspected several items in their laboratory including their analytical scale, incubator, autoclave, DO meters, pH meters, and their thermometer. The laboratory space was also clean and orderly.

VIII. Site Review

Mr. Durr led me on a tour of the facility. A site map and aerial image appear in **Attachment A** and a photograph log appears in **Attachment B**.

Before effluent enters the Haines WWTP, it travels through 2000 linear feet of pipe from 5 lift stations situated throughout Haines. The facility is fairly small, as it treats just 1700 residents. The building consists of two primary screens (**Photo 1**) that then lead to the grit chamber, where polymer is added. This effluent then gets routed to the clarifier (**Photo 2 & 3**). Sludge and skimmings are then moved to the aerobic digestion chamber (**Photo 4**) for further processing. The sludge and other solid materials (**Photo 5**) are then dewatered and disposed of at landfills. This amounts to approximately 200,000 lbs annually. The remaining effluent is continuously discharged through the outfall and into Portage Cove through a 16-inch outfall pipe. Right before the effluent enters the outfall pipe, it passes by a composite sampler (**Photo 6**) that takes time-proportioned samples every hour.

The 16-inch outfall pipe extends to approximately 1800 feet into Portage Cove where it ends with a three-port diffuser. One of the ports was capped in 1986 and is no longer used.

IX. File Review

I reviewed the following records:

- EPA NPDES permit renewal acceptance letter – Dec. 14, 2006
- Quality Assurance Plan (QAP) – Feb. 2024 & Mar. 2024
- DMRs – November & December 2021
- Operations and Maintenance Manual – July 2009
- Standard Operating Procedures – (no date)
- Annual Report - Jan. 2024
- Public Education Advertisement (as required by the permit) – Mar. 2, 2023

X. Areas of Concern

1) Effluent Limitations

Section I.A.5. of the permit states “The following effluent limits shall apply at all times:”. This section references **Table 1** in the permit. Please see **Table 1** below.

Table 1. EFFLUENT LIMITATIONS			
Effluent Parameter	Unit of Measurement	Monthly Average	Maximum Daily
Flow	MGD	1.9	2.9
Biochemical Oxygen Demand (BOD ₅) ¹ May 1 - September 30	mg/L	260	300
	lbs/day	4100	4800
Biochemical Oxygen Demand (BOD ₅) ¹ October 1 - April 30	mg/L	140	200
	lbs/day	2200	3200
Total Suspended Solids (TSS) ¹	mg/L	140	200
	lbs/day	2200	3200
Fecal Coliform	# FC/100 mL	1,000,000	1,500,000
Copper	µg/L	78	156
1. The monthly average effluent loading shall not exceed 70 percent of the monthly average influent loading for five day biological oxygen demand (BOD ₅) and total suspended solids (TSS).			

Table 1 - Table 1 - Effluent Limitations taken from permit

The Haines WWTP has had 7 effluent limit exceedances in the past 5 years. Mr. Durr did mention to me several times that they experience heavy inflow and infiltration during rain events. This is a possible cause to their exceedances. The facility is also waiting for a grant so they can study the inflow and infiltration issues.

Effluent Violations											
Violation Code	Monitoring Period End Date	Limit Set	Parameter	Mon. Loc.	Seas. ID	SNC Group	EA Identifier	Value Type/ Stat. Base	Reported Value/Units	% Exceed.	Limit Value/ Units
E90	01/31/2024	001-A	81010 - BOD, 5-day, percent removal	K	0	1		C1 MN % RMV	8 %	31%	>=30 %
E90	05/31/2023	001-A	81010 - BOD, 5-day, percent removal	K	0	1		C1 MN % RMV	18 %	17%	>=30 %
E90	01/31/2022	001-A	81010 - BOD, 5-day, percent removal	K	0	1		C1 MN % RMV	12 %	26%	>=30 %
E90	07/31/2021	001-A	31616 - Coliform, fecal MF, MFC broth, 44.5 C	1	0			C3 DAILY MX	9,000,000 #/100ml	500%	<=1,500,000 #/100ml
E90	09/30/2019	001-A	00530 - Solids, total suspended	1	0	1		C3 DAILY MX	244 mg/l	22%	<=200 mg/l
E90	08/31/2019	001-A	00530 - Solids, total suspended	1	0	1		C3 DAILY MX	208 mg/l	4%	<=200 mg/l
E90	08/31/2019	001-A	81010 - BOD, 5-day, percent removal	K	0	1		C1 MN % RMV	27 %	4%	>=30 %

Table 2 - Effluent limit violations taken from Integrated Compliance Information Systems (ICIS)

XI. Closing Conference

A closing conference was held with Mr. Durr on the afternoon May 29, 2024, at the Haines WWTP. The permit limit exceedances were briefly discussed and then I thanked him for his time and assistance with the inspection.

Attachment A

Aerial Image



Figure 1 - Aerial image taken from Google Maps

Attachment B

Photo Log

(All photos were taken by myself on an Olympus Tough TG-6 camera)



Photo 1 - Grit screen



Photo 2 - Clarifier



Photo 3 - Same clarifier from a different angle



Photo 4 - Aerobic digester (right outside clarifier)



Photo 5 - Dewatered sludge and solids ready for landfill



Photo 6 - Effluent composite sampler